

**REMARKS/ARGUMENTS****I. General**

Claims 1-53 are pending in the present application. Claims 1-42, 44-50, and 52-53 stand rejected under 35 USC §102(e), and dependant claims 43 and 51 stand allowable if rewritten in an independent form that includes all of the limitations contained in their respective independent claims. Because the Examiner uses wholly new bases for rejecting the pending claims in his Office Action dated October 15, 2002 (hereinafter *third Office Action*), the Applicant assumes that all of the objections and rejections raised in the Examiner's previous Office Actions, dated April 2, 2002 and September 6, 2001 respectively, were successfully traversed by the amendments and comments submitted by the Applicant on July 11, 2002. Thus the present response is limited solely to the objections and rejections raised by the Examiner in the third Office Action.

The Specification stands objected to because the Title of the invention is asserted by the Examiner not to be descriptive of the invention to which the Claims are directed. In response, the Applicant has amended the Title of the invention to recite a "Tuner System Self Adaptive to Signal Environment," consistent with the subject matter of the claims. Accordingly, it is respectfully submitted that the objections to the Specification have been overcome.

**II. The Rejections of Record Do Not Clearly Address All Claims**

Claims 19 and 20, although indicated as rejected in the Office Action, are rejected for reasons unclear to the Applicant. As the sole bases for rejection, the Examiner states on page 3 line 2 of the third Office Action, that "Caporizzo et al disclose means for changing power levels with respect to certain of said tuner components." Without conceding that the cited reference actually discloses this, the Applicant does not see the relevance of such a disclosure to claims 19 and 20. Claim 19 recites a tuner that includes a circuit for taking signal measurements. Claim 20 recites the same tuner with the further limitation of a circuit for determining power across all channels. However, the Examiner's cited passage does not teach or suggest either claim. Accordingly, Applicant respectfully points out that the rejection of claims 19, and 20 does not comport with Office policy. Specifically, the

Examiner is directed that “[i]n accordance with the patent statute, ‘Whenever, on examination, any claim for a patent is rejected, or any objection . . . made’, notification of the reasons for rejection and/or objection together with such information and references as may be useful in judging the propriety of continuing the prosecution (35 U.S.C. 132) should be given,” M.P.E.P. § 707. As such the Examiner has not “clearly articulate[d] any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise respond completely at the earliest opportunity,” M.P.E.P. §706. Applicant therefore requests that the Examiner set forth the grounds for rejection with respect to claims 19 and 20 in order that Applicant may have a full and fair opportunity to explore the patentability of these claims.

### III. The 35 U.S.C. §102 Rejections

All of the remaining rejections of record are 35 U.S.C. §102(e) rejections based upon the teachings of Caporizzo et al., U.S. patent number 6,014,547 (hereinafter *Caporizzo*). It is the Examiner’s contention, that all of the claims rejected are anticipated by this single reference. However, to anticipate a claim under 35 U.S.C. § 102, a reference must teach every element of the claim, see M.P.E.P. § 2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim,” see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). The Applicant respectfully submits that Caporizzo does not teach every element of the rejected claims, nor does it show the identical invention in as complete a detail as recited in those claims.

Caporizzo teaches a device that “selectively equalizes and processes the *input signal* depending upon the carrier frequency selected . . .,” see the abstract (emphasis added). The Caporizzo device receives a spectrum of RF signals within the bandwidth typical of a cable television (CATV) communication system, see column 1 lines 42-46. The signals within this bandwidth are typically of differing amplitudes, see column 2 lines 50-65, and the Caporizzo device equalizes these received signals such that the received spectrum of RF signals are all at the same signal level (specifically, the amplitude of all received signals are attenuated to a level of a lowest magnitude received signal), see column 3 lines 1-15. This equalized bandwidth is then the input to the remaining tuner circuitry, see column 3 lines 15-26.

**A. Independent Claims 1, 9, 18, 26, and 32**

Independent claim 1 recites a means for “determining from a measurement of the measurable characteristics which are present in a particular set of signals input to said tuner certain desirable tuner *operating characteristics*; and means operable under control of said determining means for changing the *operating characteristics* of said tuner” (emphasis added). Independent claim 9 recites a “method of operating a tuner, said method comprising the steps of determining optimal tuner *operating characteristics* from knowledge of the signals being processed by the tuner; and adjusting the tuner *operating characteristic* in accordance with said determining step” (emphasis added). Independent claim 32 recites a tuner that includes “adjustment circuitry operable in cooperation with said determination circuitry for changing power levels to certain *tuner components* in accordance with the signal set then being processed” (emphasis added).

In contrast to the Applicant’s invention, Caporizzo teaches a device for altering the characteristics of the input signal for a tuner by equalizing the levels of those input signals. It appears that the examiner is reading the Caporizzo “input characteristics of the received signal” to correspond to the Applicant’s “operating characteristics of said tuner.” It also appears that the Examiner is reading the levels of the input signals that are altered in Caporizzo to correspond to the power levels of tuner components altered by the Applicant. The characteristics of the input signal and the operating characteristics of the tuner are separate and independent features of separate and independent things. In the same manner, the levels of the input signals and the power levels of the tuner components are separate. The Applicant’s application relates to the alteration and manipulation of the qualities and characteristics of a tuning device. The Caporizzo reference relates to the alteration and manipulation of signals that would be the input of a tuning device. Accordingly, it is asserted that independent claims 1, 9, and 32, as well as all claims dependent therefrom, are not anticipated by Caporizzo.

The Examiner utilizes a similar line of reasoning to reject independent claims 18 and 26. Independent claim 18 recites a “tuner comprising a circuit for determining *tuner operating characteristics* from knowledge of the signals being processed by the tuner; and at least one circuit for adjusting the *operating characteristic* in accordance with said determining circuit” (emphasis added). Similarly, independent claim 26 recites a “tuner

comprising circuitry for: determining desired *operating characteristics* of certain tuner components from knowledge of the signals being processed by the tuner; and circuitry operable in cooperation with said determining circuitry for adjusting the *operating characteristics* of said certain components” (emphasis added). By contrast, Caporizzo teaches alteration of the input signal characteristics, not the operating characteristics of the tuner. Accordingly, it is asserted that independent claims 18 and 26, as well as all claims dependent therefrom, are not anticipated by Caporizzo

The differences embodied in the arguments above, particularly the difference between input signal characteristics and tuner operating characteristic, are made more obvious by the limitations placed on the Applicant’s dependent claims. For example, dependant claim 3 recites a “means for determining optimum operating characteristics for said tuner depending upon said determined operating characteristics.” By contrast, Caporizzo alters the input signal characteristics, not to an optimum level determined by the device, but to a level determined by the lowest signal level in the received spectrum, see column 3 lines 11-14. The Examiner relies solely on the abstract of Caporizzo as in rejecting claim 3. Applicant’s attorney’s review of the abstract does not reveal any mention of tuner operating characteristics at all, irregardless of the optimum values. Clearly the abstract can not be said to contain the identical invention in as complete a detail as recited in claim 3.

Further, dependent claims 14 and 23 relate to the adjustment of tuner component power consumption. The Examiner cites the equalizer found in Figure 5 of Caporizzo as his sole reason for rejecting these claims. Applicant’s attorney’s review of Figure 5 does not reveal any means or method of controlling component power consumption, and there is no indication as to how the equalizer, depicted in Figure 5 as adjusting signal frequency, might do so. Thus, Figure 5 can not be said to contain the identical invention in as complete a detail as recited in the claims.

Similarly, dependent claims 15 and 29, which relate to the adjustment of the current level supplied to tuner components, are also rejected by the Examiner solely based on the equalizer disclosed in Figure 5 of Caporizzo. Applicant’s attorney’s review of Figure 5 does not reveal any means or method of adjusting the current levels of tuner components, and there is no indication as to how the equalizer, depicted in Figure 5 as adjusting signal frequency,

might do so. Thus, Figure 5 can not be said to contain the identical invention in as complete a detail as recited in the claims.

Dependent claims 17 and 28 relate adjusting the number of tuner components that are active at any particular time. The examiner again relies solely on the equalizer disclosed in Figure 5 of Caporizzo. Applicant's attorney's review of Figure 5 does not reveal any means or method of adjusting the number of tuner components that are active at any particular time, and there is no indication as to how the equalizer, depicted in Figure 5 as adjusting signal frequency, might do so. Thus, Figure 5 can not be said to contain the identical invention in as complete a detail as recited in the claims.

#### **B. Independent Claim 6**

Independent claim 6 recites a "method of operating a tuner, said method comprising the steps of: assessing from time to time the incoming signal environment, wherein an assessment of said incoming signal environment is a function of the signals then being processed by said tuner; based upon said assessed incoming signal environment selecting an operating level for said tuner; and setting the operation of said tuner consistent with said selected operating level." By contrast, Caporizzo discloses a method of determining the level of a particular signal in a received spectrum, see column 5 lines 10-15, equalizing the signal level of the entire spectrum to a single level based on that level, see column 5 lines 15-21, and providing this as the input signal to the tuner, see column 5 lines 22-23.

It appears the Examiner is reading the signal level determined by the Caporizzo reference to correspond to the operating level for the tuner as recited in claim 6 of the Application. The level of the signal received by a tuner is not the operating level of the tuner itself. Caporizzo does not disclose a method of determining the appropriate operating levels of a tuner by assessing the signal environment to determine these levels. Further, the Caporizzo reference does not adjust the operating levels of the tuner itself. Accordingly, it is asserted that independent claim 6, as well as all claims dependent therefrom, are not anticipated by Caporizzo.

This difference is made more obvious by the limitations placed on the Applicant's dependant claims. For example, dependant claim 7 recites a method including the

determination the optimum power level for the tuner. The Examiner relies solely on the abstract for the rejection of this claim, but review of the abstract by Applicant's attorney does not reveal any mention of tuner power levels at all, irregardless of the optimum values for these levels. Clearly the abstract can not be said to contain the identical invention in as complete a detail as recited in this line of claims.

### **C. Independent Claims 38 and 46**

Independent claim 38 recites a system for processing signals that includes, in part, a means for providing power control of a tuning means that is in accordance with a signal environment determined tuner power level. Independent claim 46 recites a method for processing signals comprising in part of providing power control for tuning that is in accordance with a signal environment determined tuning power level. By contrast, Caporizzo, as described in detail in the proceeding paragraphs, teaches the attenuation and equalization of Cable Television RF signals for input into a tuner mechanism. The Caporizzo means and methods claim to improve RF tuner performance solely through the alteration of the input, see abstract.

In the third Office Action, the Examiner rejects independent claims 38 and 46, and the majority of their respective dependent claims, because the Examiner believes that "Caporizzo et al disclose . . . means for determining power level," and a "means for providing power control" to a tuner, see third Office Action page 4 lines 4-11. However, Applicant's attorney's review of Caporizzo does not reveal any discussion of tuner power levels or tuner power control at all. Because Caporizzo does not even discuss these topics, it can not be said that Caporizzo contains the identical invention in as complete a detail as recited in independent claims 38 and 46. Accordingly, it is asserted that independent claims 38 and 46, as well as all claims dependent therefrom, are not anticipated by Caporizzo.

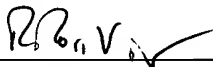
### **IV. Summary**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 49581/P016US/09806411 from which the undersigned is authorized to draw.

Dated: December 30, 2002

Respectfully submitted,

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**Version with Markings to Show Changes**

The title has been amended as follows:

[ENVIRONMENTALLY ADAPTIVE TUNER SYSTEM]

TUNER SYSTEM SELF ADAPTIVE TO SIGNAL ENVIRONMENT